NextLINK

The Next-Gen PA UT TFM/FMC Multi-Stacking Analyzer

Advanced PA System Integration / **F**MC & TFM / **S**ingle System 64 / 128 PR

Professional Ultrasound Computation / **M**ulti-System Stacking / **S**turdy and Compact Construction

Power Generation Manufacturing Automotive Transportation Oil & Gas Areospace

NEXTNDT Safety of The Future

Wind turbine blades, glass carbon fiber inspection

Composite material (carbon fiber) inspection

Aluminum plate and aluminum honeycomb inspection

Aircraft Skin Bonding Inspection

HDPE pipe resistance welding workpiece inspection

Gear detection

Weld inspection

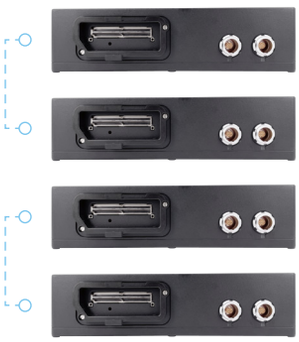
Bolt detection

Plane detection

When using FMC and TFM, the **Next**LINK product series has advanced phased array ultrasonic technology with better performance and operating speed, equipped with professional system data acquisition and analysis software to provide flexible and scalable solutions for various industrial NDT applications.

NextLINK system offers advanced multiple stacking

NextLINK systems are scalable for automated inspections from 64:128 configurations and beyond.



- Data transfer rates up to 8 GB/s
- Up to 4 simultaneous NextLINKs

NextLINK integrated multi-system can significantly increase inspection speed and greater accuracy and can be equipped with:

- An unlimited number of probes.
- An unlimited number of Group settings.
- Over 13k+ aggregation rules.

NextLINK has an IP65 degree of protection. Its external case is equipped with an external fan for optimized cooling.

Fast programming

The optimized **Next**LINK communication process greatly reduces programming and detection and staff training time.

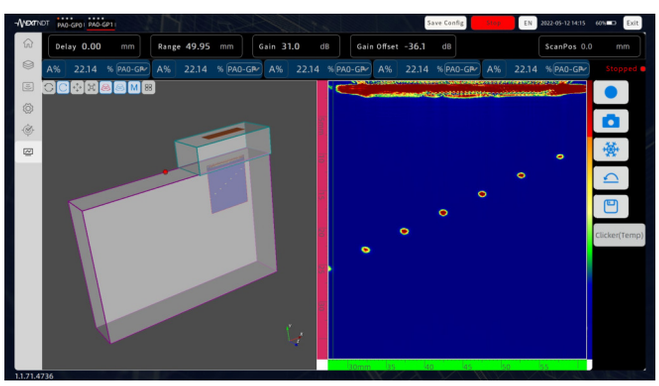
Strong and Sturdy

NextLINK is built for harsh environments that can be integrated into real-world production conditions. It is IP65 rated with its housing is optimized for heat dissipation.

Advanced Phased Array Mode

Based on the 3D ultrasound simulation computer system (**Next**CAL) with independent intellectual property rights, the application is efficient and practical:

① 3D CAD import configuration
② Linear, matrix, DLA, DMA, chrysanthemum, ring, sector probes
③ PE, TOFD, PAUT, FMC, PWI, TFM imaging technology



Real-time full matrix acquisition (FMC) and full aggregation method (TFM)

FMC and TFM are currently recognized as one of the highest and fastest resolutions PAUT technologies used in high-speed ultrasonic testing.

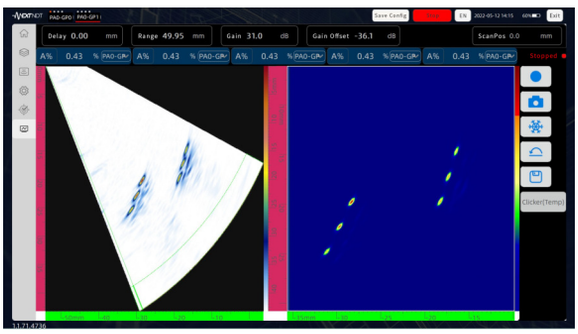
TFM can be implemented on the local machine of **Next**LINK. **Next**LINK combines real-time array data acquisition (FMC) capability with massive data throughput, allowing the device to provide faster and increased image processing power, with more accurate images, and a larger evaluation examination area.

High-speed data transfer

with 2G/s high-speed data transmission using phased array technology.

NextACQ Acquisition Software

NextACQ is **Next**LINK's latest acquisition software dedicated to advanced phased array UT, TFM, and FMC imaging.



Advanced Offline Analysis Software NextANA

with 2G/s high-speed data transmission using phased array technology.

Software Development Kit (SDK)

- In addition to acquisition software, Eintiq also provides a custom-based.
- The software development kit (SDK) for the application.
- Interface to fully automated inspection solutions.
- Full control of NextACQ software (remote server) in real-time: gain, TCG, doors, alarms, encoders, etc.
- Real-time data retrieval (data server).
- Language/OS/PC independent.

NextLINK Applications

Aerospace and defense industry transportation

In recent decades, the aerospace and defense industry's continuous development has strengthened the overall requirements of its suppliers. Due to spacecraft flaw detection is highly critical and flaws are difficult to detect, this has put a lot of pressure on manufacturers to see more advanced flaw analyzer systems such as **Next**LINK.

Non-destructive testing of in-service aircraft:

- Aircraft Surface Skin Damage and Corrosion Detection.
- Aircraft landing gear.
- Aircraft fuselage composites.
- Aircraft fastener holes.
- Aircraft Bolt Inspection.
- Internal Defect Detection of Aircraft Engine Fan Blades.
- Aircraft fuselage rivet inspection (to prevent falling off).

Detection:

- Composite workpiece.
- Honeycomb Structure Reinforced Composite Workpiece.
- Friction Stir Weld (FSW).

Transportation

High-speed rail component manufacturers have strict quality control requirements in not only the train wheels and axles that often require periodic testing cycles to ensure that the rail system must meet safety integrity.

Detection:

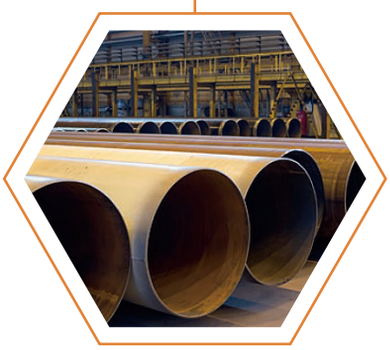
- train wheel.
- train axle.
- high-speed rail.
- train wheelset.

Manufacture of Metal and Processing

Depending on the requirements, manufacturers in the foundry industry must use the highest standard quality parts. Therefore, these manufacturers need to use high-performance inspection solutions to complete extremely stringent inspections, and the inspection cycle time must also be reduced to optimize production rates.

Detection:

- Heavy Forgings.
- pipe.
- flat.
- bar.



Petroleum and natural gas

The oil and gas industry has instituted strict inspection testing requirements to ensure environmental and public safety. Periodic testing of oil and gas products is required to monitor the degradation of the product to avoid accidental occurrences.

Detection:

- Welds (including austenitic alloys).
- Corrosion imaging.
- AUT welding of oil and gas
- long-distance pipelines.
- Seam and Corrosion Inspection.

NextLINK Specifications

General parameters

size (W * H * D)	235.6*179.7*60.5 mm
weight	Approx. 2 kg
Power	100 - 240 VAC ; 50 / 60 Hz
Interrupter	Phased array IPEX connector (optional - divided into 2)
Lemo x 2	Encoder + expansion interface
Lightning port	Power / data transmission (support 40 Gbps transmission)

Send / receive

pulse width	20 ns - 1250 ns
Excitation channel	64
Voltage	+/- 100V
gain	max 43kHz
PRF	80 dB (Optional maximum)
sampling frequency	400 million
Input broadband	0.4M - 25MHz

Full focus FM / FM speed regulation

Full focus / FM function	Full focus FM / FM speed regulation
Pulse receiver	64:128
Bit depth	16
Frame rate	256 x 256: up to 80Hz
Parallel multimode full focus method (full focus FM)	yes
Parallel PA + TFM acquisition	yes
Full focus motor resolution	Approx. 1024 x 1024 (including foam support)
Scan storage	yes
Full focus (TFM) post-processing support	yes

PA Configuration

PA Configuration	64:128 PR
Number of groups	Can be upgraded to 4 probes, 8 groups
Detection technology	Public address
digit	16 bits
A scan 8	Up to 200%
A maximum number of scanning data points	Up to 16384
Maximum number of focus laws	8192
Maximum data transfer rate	2 gigabytes / S
Digital frequency	100 MHz / 200 MHz
Maximum PRF	20 kHz
Pulse shape	Negative square wave pulse / upgradable positive square wave pulse and negative square wave pulse
Gain range	0-80 DB
Pulse generator voltage	100V / 200V
pulse width	20ns to 1250ns
System bandwidth	0.4 MHz to 25 MHz
Real time average	Up to 64
TCG multipoint acquisition	yes

Software features

TFM maximum aperture	Smooth operation
Automatic probe identification	yes
Automatic scanner recognition	yes
Automatic wedge recognition	yes
Focusing mode	True depth, sound path, projection
Calculation of two-dimensional focusing law	yes
Installation guide	yes
Wireless screen mirroring	yes
Wireless remote control	yes
Support secondary development (programmable)	yes
Support c++ Programming	yes

Three models are available

We provide three models of **Next**LINK flaw detectors: 32: 64PR, 32: 128PR, and 64: 128PR. If you choose the 32:64PR and 32:128PR models, you can easily upgrade to the 64:128PR model in the future.

Standard Kit (64: 128PR)

NextLINK Phased Array Analyzer, including FMC/TFM and PA function, **Next**SOFT software, calibration certificate, DC charger with power cord, and carrying case.

*__Next__LINK Technology: Including FMC, TFM, and PA technology with built-in sound field 3D simulation calculation technology

Products have been certified by ISO 9001 Quality Management System, ISO 14001 Environmental Management System, and ISO 45001 Occupational Health and Safety Management System. The information in this document was accurate at the time of its publication, and actual products may differ from those described herein. All technical specifications are subject to change without notice.

NextNDT Technology, Inc.
1580 Oakland Rd, Suite C209
San Jose. CA 95131 USA
sales@nextndt.com - **Next**NDT.com